VIAGGIO DI LEONARDO FEA IN BIRMANIA E REGIONI VICINE

LXV.

ON THE COCCINELLIDAE COLLECTED BY Mr. L. FEA IN BIRMA BY REV. H. S. GORHAM.

The Coccinellidae collected by Sign. Leonardo Fea in Birma and Tenasserim form an important addition to our knowledge of this group in the East. On the whole there is of course a large proportion of species which are widely distributed over the whole of the Indian continent, and some of which extend very much further; as a comparison of the species now recorded with those in my notice of Coccinellidae from India (Ann. de la Soc. Ent. Belg. XXXVIII, 1894, p. 200) will abundantly show. But fourteen species are now described as unknown to me, and there are in addition several remarkable specific varieties, and three or four other species of Scymnus, one of Jauravia, and a probably new genus allied to Clanis which it was not possible to describe, the material not being enough. The collection was, as all Sign. Fea's are, in admirable condition and most carefully labelled with the altitude and dates of capture, which must ultimately be of value in ascertaining the distribution vertically of difficult and variable species.

1. Adalia indica, Crotch. Carin Chebà, 900-1100 m.

H. S. GORHAM

2. Halyzia feae, n. sp.

Oblongo-ovata, pallide flavo-testacea, elytris distincte inequaliter punctatis; prothorace punctis duobus basalibus, elytris singulis punctis duobus discoidalibus anteriore transverso suturaque tenuissime nigris. Long. 5 millim.

Hab. Birma, Bhamo (Fea).

Pale straw-yellow, becoming paler near the sides of the thorax, and towards the margins of the elytra, the underside and legs entirely pale, with only a fuscous cloud on the sides of the sterna and abdomen very indeterminately marked. On the thorax are two black dots (like those in *Thea cincta*) and on the elytra two spots, one transverse a little before the middle, the other punctiform, rather irregular, about a third from the apex.

Obs. This *Halyzia* is very distinct by the thoracic spots, the only other Coccinellidae I know that are similarly marked being *T. cincta*, F. and *Halyzia championi*, Gorham from Central America.

A single example.

3. Thea cincta, Fabr.

Coccinella cincta, Fabr.

Psyllobora cincta, Muls. Spec. Col. Trim. sécur. p. 167. Bhamo.

4. Cyphocaria duvauceli.

Caria Duvaucelii, Muls. Spec. Col. Trim. sécur. p. 243. Leis javana, Muls., loc. cit. p. 245. Coelophora placens, Muls. Opusc. III, p. 54. Bhamo, Carin Chebà.

5. Coccinella septempunctata, L. Bhamo.

6. Coccinella repanda, Thunb. Bhamo, Teinzo, Shwegoo, Carin Chebà.

COCCINELLIDAE FROM BIRMA

7. Coccinella arcuata, Fabr.

Carin Asciuii Chebà.

8. Leis quindecim-maculata.

Coccinella 15-maculata, Hope Zool. Misc. p. 30. Coccinella 15-spilota, Hope, loc. cit. p. 30. Carin Chebà.

9. Coelophora biplagiata.

Coccinetta biptagiata, Schön. Syn. II, p. 196. Lemnia biptagiata, Muls. Spec. Col. Trim. sécur. p. 383. Var. Bhamo, Teinzo, Shwegoo.

This variety, of which there are five examples, three of them being from Shwegoo, differs from Chinese specimens of *C. biplagiata* in having the sides of the thorax widely white entirely to the base. The head being also white with the front margin of the thorax, I think that two of the Shwegoo specimens are males. And these have a red marking near the apex of the elytra.

10. Coelophora melanota.

Lemnia melanota, Muls. Spec. Col. Trim. sécur. p. 381. Pegu: Palon, Rangoon.

11. Coelophora inaequalis.

Coccinella inaequalis, Fab. Carin Chebà; Tenasserim: Malewoon, Meetan.

12. Coelophora sexareata, Muls.

Carin Asciuii Chebà.

13. Coelophora birmanica, n. sp.

Orbicularis nigra, nitida, prothorace macula magna laterali, elytris maculis tribus magnis duabus basalibus oblongis, una subapicali rotundata, margine tenni epipleurisque pedibus flavis. Long. 3.5-4 millim. Mas. capite flavo. Femina capite nigro, labro flavomarginato.

Hab. Shwegoo.

Allied to *C. sexarcata*, Muls. and the female example of the size of the smaller examples of that species, the male smaller. The yellow thoracic spot on the side is similar to that of *C. sexarcata*, rounded on the inner side and leaving a broad black central vitta; the elytral spots are similarly placed but are smaller, and the humeral one does not extend further back than the scutellar spot, it is however wider at its apical end. The margin is yellow (it is black in *C. sexarcata*). The punctuation of the elytra is very distinct.

Two examples.

14. Coelophora pedicata, Muls.

Carin Asciuii Chebà.

Oenopia luteo-pustulata, Muls.
Coelophora luteo-pustulata, Crotch Rev. Coccin. p. 156.
Coelophora mariae, Muls. Op. III, p. 56.
Carin Asciuii Chebà.

16. **Oenopia sauzeti**, Muls. Carin Asciuii Chebà.

17. **Oenopia kirbii**, Muls. Carin Chebà.

18. Synonycha grandis, Thunb. Carin Chebå, Bhamo.

19. **Caria dilatata**, Fabr. Carin Asciuii Chebà.

20. Verania vincta, n. sp.

Orbicularis, saturate ochracea, capite nigro fronte labroque albo, prothorace nigro angulis anticis margineque antico albis, elytris aurantiacis, sutura, vitta mediana, margineque tenuissime nigris, metasterno femoribusque posticis nigrescentibus. Long. 4-5 millim.

Hab. Birma : Shwegoo, Bhamo, Teinzo.

This insect is so much like *Verania frenata*, that it may suffice to point out the differences. The vitta on the elytra is simple, it starts from the base and has no "hooks ,, at its apices as it has in *V. frenata*. The legs are not black, nor is the underside wholly black as in that species.

The thoracic marks in this insect and in the variety of *C*. *discolor* noticed in this paper as *V*. *bifurcata*, and in *V*. *freuata* are absolutely alike; i. e. the base as far as the angles and two median projections (sometimes hardly divided by a narrow white line, not quite reaching the front margin), are black; and this marking will serve to distinguish *V*. *vincta* from *Alesia univittata*, Hope, Muls. which occurs in Nepal and on the Khasia Hills.

21. Verania discolor, Fabr., Muls., Crotch.

Coccinella discolor, Fabr.

Var. crocea, Muls. ? Mandalay, Yenang Young.

Var. *bifurcata*, Gorham. Carin Chebà, Bhamo. Pegu: Rangoon, Tikekee.

A series of eight specimens obtained by Fea and three examples in Crotch's collection differ from typical V. discolor in having the whole base of the thorax with a wide central prolongation (not reaching the front margin, and usually itself divided by a narrow white line from the white front margin) black. The elytra in these examples is also of a richer orange yellow tint. In one example the points of the projections are almost detached so as to form spots. These examples are from Bhamo, Carin Chebà, Rangoon and Tikekee in Pegu. Crotch's examples, are from India and Java, but I have seen in his collections specimens of V. lineata sec. Crotch which I think cannot be separated from these. It is probable that the vitta is wanting in certain varieties.

22. Chilomenes sexmaculata. Coccinella 6-maculata, Fabr. Var. Bhamo. 23. Aiolocaria dodecaspilota, Hope. Coccinella 12-spilota, Hope Zool. Misc. p. 31. Caria 12-spilota, Muls. Spec. Trim. sécur. p. 236. Aiolocaria dodecaspilota, Crotch, Rev. Coccin. p. 178. Carin Chebà.

24. Chilocorus nigritus, Fahr. Coccinella nigrita, Fahr. Orcus cerberus, Muls. Opusc. VII, p. 148. Rangcon.

25. Orcus? discoideus, n. sp.

Orbicularis, convexus, perobsolete, vix visibiliter punctatus, sanguineo-rufus, antennis, palpis, tibiis tarsisque dilutioribus; prothorace, elytrorumque marginibus late nigris. Long. 2 millim.

Mas.², capite rufo, prothoracis angulis anterioribus rufescentibus. Femina, capite nigro.

Hab. Birma, Carin Asciuii Chebà, Carin Ghecu.

Orbicular, very convex and shining, the punctuation is very fine and close, a little more deeply impressed on the head and thorax; the former is dull blood-red in some examples and black in others, the thorax is short, of the usual Chilocorid form, margined by a fine but distinct impressed line, the sides very finely reflexed. The antennae are dull red, they reach as far as the hind angles of the thorax. The elytra have their disk of fine blood-red colour, the margins widely black, at the apex this black margin is wider, covering a quarter of the elytra. Their epipleurae are not black except at the outer margins. About twelve specimens were obtained. This insect is congeneric with a species I have described as *Orcus ferrugineus*, from India (Ann. Soc. Ent. Belg. XXVIII, p. 203, 1894), these and the following species are placed provisionally in the genus *Orcus*.

26. Orcus carinicus, n. sp.

Orbicularis, valde convexus, nitidus fortiter ac distincte punctatus; niger, elytrorum disco (sutura nigra) saturate sanguineo. Long. 2.5 millim.

Hab. Birma, Carin Chebà.

This species differs from the last (*O. discoideus*) in being larger more convex, more evidently punctured, and in having the suture and legs black. The head (in the single example) is somewhat reddish, but so dark especially at the base as to be almost black. The legs incline to be reddish, but are very dark. I have very little doubt the example is a male, and that the female would be even darker in the parts usually black in that sex.

27. Orcus bipunctatus, n. sp.

Orbicularis, convexus, nitidus, crebre ac distincte fortiter punctatus, sanguineo-rufus; elytrorum sutura plus minusve, puncto basali alteroque discoidali et margine reflexo late nigris. Long. 2.5 millim.

Hab. Birma, Bhamo; Tenasserim, Meetan.

Rather larger than O. discoideus and more deeply and very distinctly punctured. The head and thorax and disk of the elytra are deep blood-red, the latter each with a black spot on the middle of the base, and one free in the middle of the disk, the suture has a common spot about the middle often joined to the base by a black line common to the suture on each elytron, and often joined to the apical black, but often the suture is only very indistinctly darker. The margins are black as in O. discoideus, the extreme limb is often reddish. The example from Tenasserim is a little more strongly punctured than the others. Legs and mouth organs yellow. Four examples.

28. Orcus quadriguttatus, n. sp.

Orbicularis, modice convexus, piceus, nitidus, crebre fortiter punctatus, elytris singulis maculis duabus sanguineo-rufis; capite, elytrorum marginibus, prothoracis lateribus corporeque subtus rufopiceis, pedibus ferrugineis. Long. 1.75 millim.

Hab. Rangoon, Bhamo.

This small *Orcus* may be distinguished from other known to me by the coarse, and (on the elytra) rather irregular punctuation; striae cannot be said to be present, but the larger

Ann. del Mus. Civ. di St. Nat. Serie 2 ª, Vol. XIV (7 Gennaio 1895)

punctures tend to form lines. The red spots do not touch the base nor the apex of the elytra, and the apical pair are more remote from the apex than the basal are from the base; the four form a square, and are united longitudinally but not at the suture. The specimen from Bhamo is rather darker than the type, and has the punctuation more regular and more distinct.

Two specimens, one from each locality.

29. Aspidimerus ruficrus, n. sp.

Oblongo-ovatus, niger, tenuiter breviter pubescens, abdomine et femoribus sanguineis, tibiis tarsisque flavis; elytris flavis, sutura margineque laterali punctisque duobus, uno in callo altero discoidali, nigris. Long. 3.5-4 millim.

Hab. Carin Chebà.

Head and thorax black, the former indistinctly ochreous in front, in the smaller example of three now before me; the latter very closely and finely punctured, clothed with short golden pubescence. The underside is blackish, the abdomen indistinctly deep blood-red, the sterna are rather coarsely punctured, the abdomen more finely so and pubescent. Femora blood-red, tibiae and tarsi yellow. Elytra ochreous yellow, the suture black widening a little in the middle, the lateral margin widens to beyond the middle and is then suddenly reduced in width, but is wider again at the apex. Of the two elytral spots the discoidal one is the larger.

Three examples.

30. Aspidimerus tri-oblitus, n. sp.

Breviter obovatus, capite (maris) flavo, feminae nigro, prothorace nigro, macula parva bene discreta in angulo antico flava, elytris ochraceis macula communi discoidali magna, altera marginali, apiceque late nigris, subtus nigrescens pedibus flavis. Long. 2.5 millim. Hab. Carin Chebà.

Much smaller than A. *ruficrus*, and the elytra are widened behind, so as to appear orbicular, while the prothorax is narrowed in front.

COCCINELLIDAE FROM BIRMA

This insect is allied to A. ariasi, Crotch, an Indian species, the discoidal spot is nearly the same in form and position, but there is a large lateral spot in A. trioblitus which is united to the margin, and instead of a posterior spot, the Burmese insect has the apex broadly black, the inner margin of the black being sinuate. The base of the elytra is marked with black in the middle, thus the yellow portion is shaped rather like the letter x.

Two examples only of this little species; a male and female.

31. Ortalia maeklini, Muls. Opuse. III, p. 130. Bhamo.

" Common throughout the East Indian Archipelago," Crotch.

32. Rodolia rufopilosa, Muls. Spec. Col. Trim. sécur. p. 903. Tenasserim : Kawkareet.

33. Cryptogonus malasiae, Crotch, Rev. Coccin. p. 203. Bhamo, Carin Asciuii Ghecu.

34. Cryptogonus birmanicus, n. sp.

Oblongo-ovatus, breviter, haud dense pubescens, niger; capite (maris), prothoracis angulo antico, femoribus, abdomineque saturate ferrugineis, elytrorum macula magna discoidali aurantiaca, tibiis tarsisque flavis. Long. 5 millim.

Hab. Birma, Carin Chebà.

In the more brightly coloured examples, the head, front margin of the thorax, and its front angles, are yellow. The legs are either yellow, or deep rusty red, the tibiae and tarsi paler. The punctuation is exceedingly close but not confluent, nor irregular. The pubescence is very short and rather hoary, or pale golden, sometimes silvery grey. The elytral spot is irregular in size and form, sometimes transverse, it is nearer the base than to the apex.

In a smaller specimen (4 millim.). The head is very obscurely red, the elytral spot nearer to the base, and the apex of the elytra narrowly red, and the angles of the thorax are not red,

H. S. GORHAM

this may possibly represent a different species. It was however obtained at the same time and place — viz, December 1888.

35. Scymnus nubilus, Muls., Spec. Col. Trim. secur., p. 972.

Hab. Birma: from Prome to Minhla. Tenasserim: Kawkareet. Recorded from various parts of India.

36. Scymnus asciuianus, n. sp.

Breviter oblongus, valde convexus, brunneus, tenuiter cinereopubescens, elytris nigris, margine et macula discoidali vix communi rufo-castaneis; striolis duobus vel tribus subscutellaribus punctatis, curvatis, postice abbreviatis. Long. 2-2.5 millim.

Hab. Carin Asciuii Ghecu, Carin Chebà.

Var. elytrorum disco toto nigro (\mathcal{Z} ?).

The head thorax legs and body beneath are yellow. The elytra are very variable, some small examples having the disk black with the margins only yellow, while others (perhaps the females) have the disk more or less blood-red, sometimes this red spot is almost common, but usually the suture remains faintly blackish. The basal striolae are quite distinct and the two inner ones extend about halfway down the suture, approaching it more nearly as they proceed, while external to them there is a faint and confused indication of striation.

Six examples.

37. Scymnus tristigmaticus, n. sp.

Late ovatus, sordide ferrugineus, griseo-pubescens, metasterno piceo, elytrorum macula suturali, subscutellari, alteraque humerali ad medium marginis ampliata, nigro-piceis. Long. 2 millim.

Hab. Carin Asciuii Ghecu 1400-1500 metres.

Oblong, the thorax a good deal narrower than the elytra and narrowing in front; sordid rusty-red, densely clothed with an ashy pubescence. The punctuation is scarcely visible, but the elytra have each, two short curved punctured striae near the suture on the black spot, which is there common to them both; this spot joins the base very narrowly, but the scutellum (though

sometime dusky) appears to be generally yellow. Metasternum blackish especially at the sides. Seven examples; in one the black markings are nearly obsolete.

38. Scymnus birmanicus, n. sp.

Z. Late ovatus, suborbicularis niger, tenuissime cinereo-pubescens; minute, crebre, vix visibiliter punctatus, capite prothoracis angulis anticis, elytrisque (disco cum basis medio late nigro) pedibusque flavis. Long. 2 millim.

Q. Capite vel saturate rufo, vel rufo, epistomate nigro; elytris nigris, apice late flavo, vel macula ante apicem flava. Long. 2-2.5 millim. Hab. Birma : Bhamo, Carin Cheba.

Allied to Scymnus bilunulatus, Gorham, a species from Sumatra, and perhaps not distinct. It appears to be variable, in one example which I think is a male, the elytra are black with only the apex yellow (as in the female). The front margin of the thorax is very narrowly yellow, more widely so as well as the angles in the presumed males. There is no trace of striation. Four examples.

39. Epilachna congener, n. sp.

Breviter oblonga, valde convexa, ferruginea, prothorace puncto mediano, elytris singulis sexpunctatis, uno scapulari, uno (communi) subscutellari, duabus medianis, uno suturali (infra medium communi), uno subapicali nigris. Long. 3.5 millim.

Hab. Carin Chebà, Asciuii Chebà. Tenasserim: Thagata.

Among the small Eastern Epilachnae, this species is perhaps most like E. fasciolata, Crotch, but is not very nearly allied to that insect, being rather orbicular, and in none of the four specimens before me are the black spots confluent. The punctuation is not very coarse. The antennae, legs and underside are ferrugineous, the head and thorax paler than the elytra; in two of the examples the two subscutellar spots are not joined, but the postmedian sutural spot is always common. Of the middle pair the outer one is on the margin. In one or two specimens the breast is infuscate.

H. S. GORHAM

40. Epilachna flavicollis, Thunb. Teinzò. Tenasserim: Malewoon. Carin Chebà.

41. Epilachna dumerili, Muls. Carin Chebà.

42. Epilachna grayi, Muls. Bhamo.

43. Epilachna indica, Muls. Carin Asciuii. Chebà.

44. Epilachna pytho, Muls. Carin Chebà. Tenasserim: Mt. Mooleyit.

45. Epilachna viginti-octo-punctata. Coccinella 28-punctata, Fabr. Shwegoo, Bhamo. Carin Chebà. Pegu: Rangoon, Palon. Tenasserim: Thagata.

Oridia n. gen.

46. Oridia pubescens, n. sp.

Saturate brunnea, dense pube erecta aurea vestita, creberrime inaequaliter subtiliter punctata; prothorace transverso, angulis posticis subrectis, basi quam elytra multo angustiore. Long. 6, lat. 5 millim.

Hab. Carin Chebà.

There being only a single example of the interesting insect of which the above is a diagnosis, it is not practicable to make that examination of it which is necessary to describe the genus; but it so nearly resembles the Mexican genus *Dioria*, that it must evidently be placed near to that genus at present. It is of an uniform dark brown colour, the legs and mouth being a little paler. The elytra have their margins scarcely reflexed or expanded, the punctuation is very fine, broken and